

# UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. 08/487, 283 06/07/95 EVANS M ALX-152.10IP

18M1/1224

SETH A FIDEL ALEXION PHARMACEUTICALS 25 SCIENCE PARK SUITE 360 NEW HAVEN CT 06511 EXAMINER GAMBEL, F

ART UNIT PAPER NUMBER

DATE MAILED:

12/24/96

Please find below and/or attached an Office communication concerning this application or

**Commissioner of Patents and Trademarks** 

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GROUP 1800

UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office COMMISSIONER OF PATENTS AND **TRADEMARKS** Washington,  $\delta$ !C. 2023 $\theta$ LX-152.101P

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06/07/95

**EVANS** 

1 8 M1 / 1 22 A PPLICANT ATTORNEY DOCKET NO. SERIAL NUMBER IDELLING DATE GAMBEL ALEXION FHARMACEUTICALS 25 SCIENCE PARK <del>SUITE 360</del> 1806 NEW HAVEN CT 06511 EXAMINER 4 / 96 PAPER NUMBER ART UNIT DATE MAILED:

### Please find below a communication from the EXAMINER in charge of this application

Commissioner of Patents

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821-1.825. However, this application fails to comply with the requirements set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures.

The communication filed on 10/26/95 is not fully responsive to the communication mailed 8/25/95 for the reasons(s) set forth on the attached Notice to Comply with the Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequences Disclosures.

See marked up copy of Raw Sequence Listing.

Applicant must provide: (1) An initial or substitute computer readable form (CRF) copy of the Sequence Listing and (2) A statement that the context of the paper and computer readable copies are the same and where applicable include no new matter, as required by 37 CFR 1.821 (b), (d), (e), (f) or (g).

Since the response appears to be bona fide, but through an apparent oversight or inadvertence failed to provide a complete response, applicant is required to complete the response within a time limit of one month from the date of this letter, 37 CFR 1.135(c). Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR Applicant is requested to return a copy of the attached Notice To Comply with the response.

Applicant is required to fulfill these requirements.

Any inquiry concerning this communication should be directed to Examiner Phillip Gambel, Art Unit 1806, whose telephone number is (703) 308-3997.

# NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821 - 1.825 for the following reason(s):
1. This application clearly fails to comply with the requirements of 37 CFR 1.821
- 1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c).
3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).
4. A copy of the "Sequence Listing" in computer readable form has been submitted.  However, the content of the computer readable form does not comply with the requirements
of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing."
5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR
1.825(d).  6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e).
7.
Applicant must provide:
An initial or substitute computer readable form (CRF) copy of the "Sequence
An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.  A statement that the content of the paper and computer readable copies are the same
and, where applicable, include no new matter, as required by 37 CFR 1.821(e) or $1.821(f)$ or $1.821(g)$ or $1.825(b)$ or $1.825(d)$
For questions regarding compliance with these requirements, please contact:

For PatentIn software help, call (703) 557-0400

For Rules Interpretation, call (703) 308-1123
For CRF submission help, call (703) 308-4212

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/487,283

DATE: 12/09/96 TIME: 10:02:48

INPUT SET: S10587.raw

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

ERRORS.

SEQUENCE LISTING

```
Does Not Comply
                                                Corrected Diskette Needed
            General Information:
     (i)APPLICANT: Evans, Mark J.
                   Matis, Louis A.
                    Mueller, Eileen Elliott
                    Nye, Steven H.
                    Rollins, Scott
                    Rother, Russell P.
10
                    Springhorn, Jeremy P.
11
12
                    Squinto, Stephen P.
                    Thomas, Thomas C.
13
                    Wilkins, James A.
     (ii)TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR THE TREATMENT
         OF INFLAMMATORY DISEASES
17
18
         (iii) NUMBER OF SEQUENCES: 26
19
20
     (iv) CORRESPONDENCE ADDRESS:
21
22 . (A) ADDRESSEE: Seth A. Fidel
23 " (B)STREET: 25 Science Park (Alexion)
     (C)CITY: New Haven
24
     (D)STATE: Connecticut
25
     (E) COUNTRY: USA
26 ·
     (F)ZIP: 06511
27
28
29
     (v) COMPUTER READABLE FORM:
     (A) MEDIUM TYPE: 3.5 inch, 1.4Mb storage
30
     (B) COMPUTER: Macintosh Cetris 610
31
     (C) OPERATING SYSTEM: System 7
32
3.3
     (D)SOFTWARE: WordPerfect 3.0
34
     (vi)CURRENT APPLICATION DATA:
35
     (A) APPLICATION NUMBER: 08/487, 283
36
     (B) FILING DATE: June 7, 1995
37
        (vii)PRIOR APPLICATION DATA:
38
     (A) APPLICATION NUMBER: US 08/236,208
39
     (B) FILING DATE: 02-MAY-1994
40
41
        (viii) ATTORNEY/AGENT INFORMATION:
42
     (A) NAME: Seth A. Fidel.
43
     (B) REGISTRATION NUMBER: 38,449
```

(C) REFERENCE/DOCKET NUMBER: ALX-152.1 CIP

(ix) TELECOMMUNICATION INFORMATION:

44

supp. 2,3,10



### RAW SEQUENCE LISTING PATENT APPLICATION US/08/487,283

DATE: 12/09/96 TIME: 10:02:51 1/152

INPUT SET: S10587.raw

```
46 (A)TELEPHONE: (203)776-1790
47 (B)TELEFAX: (203)772-3655
48
49
50
```

#### **ERRORED SEQUENCES FOLLOW:**

```
(2) INFORMATION FOR SEQ ID NO:1:
      (i) SEQUENCE CHARACTERISTICS:
                                                -) (ii) MOLECULE TYPE:
     (A) LENGTH: 21 amino acids
      (B) TYPE: Amino Acid
      (C) STRANDEDNESS: Single
      (D) TOPOLOGY: Linear
57
    (A) DESCRIPTION: KSSKC peptide
      (iii) HYPOTHETICAL: No
59
      (iv) ANTI-SENSE: No
60
61
     (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
62
63
     Val Ile Asp His Gln Gly Thr Lys Ser Ser
64
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     Lys Cys Val Arg Gln Lys Val Glu Gly Ser Ser
66
67
68
69
70
      (2) INFORMATION FOR SEQ ID NO:2:
               SEQUENCE CHARACTERISTICS:

(A) LENGTH: 1658 Amino Acids /676 shown | pur 1,822 (m) of

(B) TYPE: Amino Acid | feguenc Rules, court |

(C) STRANDEDNESS: Single |

(D) TOPOLOGY: Linear |

(C) SCRIPTION: Pro-C5 Polytpeptide | (1) Molecule TYPE: runlus)

(A) HYPOTHETICAL: No
           (i) SEQUENCE CHARACTERISTICS:
71
72
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76
         (A) DESCRIPTION: Pro-C5 Polytpeptide
77
          (iii) HYPOTHETICAL: No
78
          (iv) ANTI-SENSE: No
79
          (vi) ORIGINAL SOURCE:
80
               (A) ORGANISM: Homo sapiens
81
          (x) PUBLICATION INFORMATION:
82
               (A) AUTHORS:
                                 Haviland, D.L.
83
                                     Haviland, J.C.
84
                                     Fleischer, D.T.
85
                                     Hunt, A.
86
                                     Wetsel, R.A.
87
               (B) TITLE:
88
                             Complete cDNA Sequence of Human
89
                                 Complement Pro-C5
90
               (C) JOURNAL: Journal of Immunology
91
               (D) VOLUME: 146
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# RAW SEQUENCE LISTING PATENT APPLICATION US/08/487,283 DATE: 12/09/96 TIME: 10:02:54

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92			(F)	PAGI	ES:	362-	-368		-	•				
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125		Gly	Phe	Leu	Phe		His	Thr	Asp	гàг		vaı	Tyr	Thr
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128	Pro	Asp	Gln	Ser	Val	Lys		Arg	Val	Tyr	ser		Asn	Asp
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131	Asp	Leu	_	Pro	Ala	Lys				val	Leu	Thr		тте
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137	His	Ile	Gly	Ile		Ser	Phe	Pro	Asp		Lys	Ile	Pro	Ser
138					165					170				
139								_			_			
140	Asn	Pro	Arg	Tyr	Gly		Trp	Thr	Ile	Lys		Lys	Tyr	Lys
141	175					180					185			
142								_	_		_	_	_	
143	Glu	Asp	Phe	Ser	Thr	Thr	Gly	Thr	Ala	Tyr	Phe		Val	Lys
144		190					195					200		

# RAW SEQUENCE LISTING DATE: 12/09/96 PATENT-APPLICATION US/08/487,283 TIME: 40:02:57

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147	No.	тu	ıyı	205	Leu	FIO	1113	FILE	210	Val	Ser	116	GLU	215	GIU
148				200											
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150					220	•	•	•		225					230
151				•							1				
152	<b>T</b>	hr	Ile	Lys	Ala	Arg	Tyr	Phe	Tyr	Asn	Lys	Val	Val	Thr	Glu
153				•		235					240				
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155			Asp	Val	Tyr	Ile		Phe	Gly	Ile	Arg		Asp	Leu	Lys
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170	T	hr	Gly	Gly	Phe	Ser	Glu	Glu	Ala	Glu	Ile	Pro	Gly	Ile	Lys
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179	v	al	Lvs	Asp	Ser	Leu	Asp	Gln	T.eu	Val	Glv	Glv	Val	Pro	Val
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182	I	le	Leu	Asn	Ala	Gln	Thr	Ile	Asp	Val	Asn	Gln	Glu	Thr	Ser
183						375					380				
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185		_	Leu	Asp	Pro	Ser	<sub>-</sub> Lys	Ser	Val	Thr	Arg	Val	Asp	Asp	Gly
186	3	85					390					395			
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196															
197	S	er	Leu	Ser	Gln	Ser	Tyr	Leu	Tyr	Ile	Asp	Trp	Thr	Asp	Asn

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DATE: 12/09/96 TIME: 10:03:01

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198 199					445					450				
200 201	His 455	Lys	Ala	Leu	Leu	Val 460	Gly	Glu	His	Leu	Asn 465	Ile	Ile	Val
202	400													
203	Thr	Pro	Lvs	Ser	Pro	Tvr	Ile	Asp	Lvs	Ile	Thr	His	Tvr	Asn
204		470	-4-			-2	475		2			480	- 2 -	
205								•			•			
206	Tyr	Leu	Ile	Leu	Ser	Lys	Gly	Lys	Ile	Ile	His	Phe	Gly	Thr
207			485			_	_	490					495	
208			Î	• •										
209	Arg	Glu	Lys		Ser	Asp	Ala	Ser	_	Gln	Ser	Ile	Asn	
210			•	500					505					510
211								•						
212	Pro	Val	Thr	Gln		Met	Val	Pro	Ser		Arg	Leu	Leu	Val
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217	Acn	Ser	์นาโ	Trn	LON	Acn	Tla	al.,	alu.	T we	Cuc	al w	λen	al n
219	ASP	540	vaı	пр	пец	ASII	545	GIU	GIU	гуз	Cys	550	ASII	GIII
220		240					343					330		
221	Leu	Gln	Val	His	Leu	Ser	Pro	Asp	Ala	Asp	Ala	Tvr	Ser	Pro
222		<b>V</b>	555					560		E		-3-	565	
223				•										
224	Gly	Gln	Thr	Val	Ser	Leu	Asn	Met	Ala	Thr	Gly	Met	Asp	Ser
225				570			•		575		-		-	580
226	•													
227	Trp	Val	Ala	Leu	Ala	Ala	Val	Asp	Ser	Ala	Val	Tyr	Gly	Val
228	1				585					590				
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230		Arg	Gly	Ala	Lys	_	Pro	Leu	Glu	Arg		Phe	Gln	Phe
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233	Leu	Glu	гÀг	ser	Asp	Leu		cys	GTÀ	АТа	GTA		GTĀ	Leu
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238			023					030					033	
239	Thr	Asn	λlá	Asn	Δla	Asp	Asp	Ser	Gln	Glu	Asn	Asp	Glu	Pro
240				640					645				,	650
241				•										•••
242	Cys	Lys	Glu	Ile	Leu	Arg	Pro	Arg	Arg	Thr	Leu	Gln	Lys	Lys
243	_	-			655	_		_	_	660			_	-
244														
245	Ile	Glu	Glu	Ile	Ala	Ala	Lys	Tyr	Lys	His	Ser	Val	Val	Lys
246	665					670					675			
247	_					_	_						_	
248	Lys	Cys	Cys	Tyr	Asp	Gly		Cys	Val	Asn	Asn		Glu	Thr
249		680					685					690		
250		•												

# AGE: 6 RAW SEQUENCE LISTING DATE: 12/09/96 PATENT APPLICATION: US/08/487,283

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	251 252 253	Cys	Glu	Gln 695	Arg	Ala	Ala	Arg	Ile 700		Leu	Gly	Pro	Arg 705	Су́ѕ
	254 255 256	Ile	Lys	Ala	Phe 710	Thr	Glu	Cys	Cys	Val 715		Ala	Ser	Gln	Leu 720
.•	257 258 259	Arg	Ala	Asn	<b>Ile</b>	Ser 725	His	Lys	Asp	Met	Gln 730	Leu	Gly	Arg	Leu
	260 261 262	His 735	Met	Lys	Thr	Leu	Leu 740	Pro	Val	Ser	Lys	Pro 745	Clu	Ile	Arg
	263 264 265	Ser.	Tyr 750	Phe	Pro	Glu	Ser	Trp 755	Leu	Trp	Glu	Val	His 760	Leu	Val
	266 267 268	Pro	Arg	Arg 765	Lys	Gln	Leu	Gln	Phe 770	Ala	Leu	Pro	Asp	Ser 775	Leu
	269 270 271	Thr	Thr	Trp	Glu 780	Ile	Gln	Gly	Ile	Gly 785	Ile	Ser	Asn	Thr	Gly 790
	272 273 274	Ile	Cys	Val	Ala	Asp 795	Thr	Val	Lys	Ala	Lys 800	Val	Phe	Lys	Asp
	275 276 277	Val 805	Phe	Leu	Glu	Met	Asn 810	Ile	Pro	Tyr	Ser	Val 815	Val	Arg	Gly
	278 279 280	Glu	Gln 820	Ile	Gln	Leu	Lys	Gly 825	Thr	Val	Tyr	Asn	Tyr 830	Arg	Thr
	281 282 283	Ser	Gly	Met 835	Gln	Phe	Cys	Val	Lys 840	Met	Ser	Ala	Val	Glu 845	Gly
	284 285 286 287	Ile	Cys	Thr	Ser 850	Glu	Ser	Pro	Val	11e 855	Asp	His	Gln	Gly	Thr 860
	288 289 290	Lys	Ser	Ser	Lys	Cys 865	Val	Arg	Gln	-	Val 870	Glu	Gly	.ser	Ser
	291 292 293	Ser 875	His	Leu	Val	Thr	Phe 880	Thr	Val	Leu	Pro	Leu 885	Glu	Ile	Gly
	294 295 296	Leu	His 890	Asn	Ile	Asn	Phe	Ser 895	Leu	Glu	Thr	-	Phe 900	Gly	Lys
	297 298 299	Glu	Ile	Leu 905	Val	Lys	Thr	Leu	Arg 910	Val	Val	Pro	Gľu	Gly 915	Val
	300 301 302	Lys	Arg	Glu	Ser 920	Tyr	Ser	Gly	Val	Thr 925	Leu	Asp	Pro	Arg	Gly 930
	303	Ile	Tyr	Gly	Thr	Ile	Ser	Arg	Arg	Lys	Glu	Phe	Pro	Tyr	Arg

# PAGE: 7 RAW SEQUENCE LISTING DATE: 12/09/96 PATENT APPLICATION US/08/487,283 DATE: 10:03:08

														INPUT SET: SI
304 305					935					940				
306	Tlo	Pro	T.011	λen	LOII	Val	Dro	T vze	Thr	. al.,	T1.	T ***	λ ~ ~	Ile
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310	200	960		Lys	GLY	Бец	965		СТУ	GIU	TTG	970		AIG
311		,,,,					703					210		
312	Val	Leu	Ser	Gln	Glu	G] v	Tla	λen	Tla	T.011	Thr	uic	Leu	Dro
313			975		014	OLY	110	980		пеа	****	1113	985	
314			,,,	•				700					703	
315	Lvs	Glv	Ser	Ala	Glu	Ala	Glu	ī.eu	Met	Ser	Val	Val	Pro	Val
316	-1-	1		990					995			141		1000
317									,,,					1000
318	Phe	Tvr	Val	Phe	His	Tvr	T.eu	Glu	Thr	G] v	Asn	Hig	Trn	Asn
319		-1-			100		200	014		101		*****	115	ASII
320						•				101	•			
321	Tle	Phe	His	Ser	Asn	Pro	T.011	Tla	@lu	T.179	aln	T tte	Leu	Tye
322	101	5	****	501	App	102		116	014	цуз	102	_	Tea	пуз
323						102	•				102	•		
324	I.vs	Lvs	I.e.i	Lvs	Glu	Glv	Met	T.em	Ser	Tla	Mot	Sar	Tyr	λra
325	_,_	103		275	OLU	OLY	103		Der	116	Mec	104	_	ALG
326		100					103.	,				104	U	
327	Asn	Ala	Asp	Tur	Ser	Tur	Ser	Val	Trn	I.vs	G] v	G] v	Ser	λla
328			104			- 7 -	561	105		цуз	Gry	GLY	1059	
329			101						•				105.	•
330	Ser	Thr	Trp	Leu	Thr	Δla	Phe	Δla	T.e.11	Δτα	Val	T. <b>611</b>	Gly	'Gln
331				106		niu		A.L.	106		V 44.1.	пеа	OLY	1070
332					•				100.	1				1070
333	Val	Asn	Lvs	Tvr	Val	Glu	Gln	Asn	Gln	Asn	Ser	Tle	Cys	Δsn
334			-,-	- ] -	107		<b></b>		·	1080			<b>4</b>	AUII
335														
336	Ser	Leu	Leu	Trp	Leu	Val	Glu	Asn	Tvr	Gln	Leu	Asp	Asn	Glv
337	1085					1090		_	_		1095			1
338								-	S.					
339	Ser	Phe	Lys	Glu	Asn	Ser	Gln	Tvr	Gln	Pro	Ile	Lvs	Leu	Gln
340		1100					1105	_			•	1110		
341							,							
342	Gly	Thr	Leu	Pro	Val	Glu	Ala	Ara	Glu	Asn	Ser	Leu	Tyr	Leu
343	-		1115					1120					1125	
344														
345	Thr	Ala	Phe	Thr	Val	Ile	Gly	Ile	Arq	Lvs	Ala	Phe	Asp	Ile
346				1130			•		1135	_			-	1140
347														
348	Cys	Pro	Leu	Val	Lys	Ile	Asp	Thr	Ala	Leu	Ile	Lvs	Ala	Asp
349	-				1145					1150		-		~
350							•							
351	Asn	Phe	Leu	Leu	Glu	Asn	Thr	Leu	Pro	Ala	Gln-	Ser	Thr	Phe
352	1155					1160			1		1165			
353	•										-		,	
354	Thr	Leu	Ala	Ile	Ser	Ala	Tyr	Ala	Leu	Ser	Leu	Gly	Asp	Lys
355		1170					1175					1180	_	-
356														•

### RAW SEQUENCE LISTING PATENT APPLICATION US/08/487,283

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357 358	Thr	His	Pro 1189		Phe	Arg	Ser	Ile 1190		Ser	Ala	Leu	Lys 119	Arg
359														
360	Glu	Ala	Leu	Val	Lys	Gly	Asn	Pro	Pro	Ile	Tyr	Arg	Phe	Trp
361				1200		_			120			_		1210
362														
363	I.vs	Asn	Asn	Ī.em	Gln	His	T.vs	Asn	Ser	Sar	Val	Pro	Agn	Thr
364	2,5	пор	11011		121		<b>-1,5</b>	YPP	DCI	122		110	ASII	****
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365	<b>~</b> 7	em1		•				_,	_,		_		_	_
366	_		АТа	Arg	Met			Thr	Thr	Ala	_		Leu	Leu
367	122	5				1230	)				123	5		
368														
369	Thr	Ser	Leu	Asn	Leu	Lys	Asp	Ile	Asn	Tyr	Val	Asn	Pro	Val
370		1240	)			_	1245	5		_		1250	)	
371														
372	Ile	Lvs	Trp	Leu	Ser	Glu	Glu	Gln	Ara	Tvr	glv	ดาซ	Glv	Phe
373		-1-	1255					1260		- , -	<b>-</b> -3	<b>-</b>	126	
374			1200	•				1200	•				120.	
375	m	Com	mb	<b>a</b> 1	3	m1	<b>71</b> -	3		<b>~1</b> -	<b>a</b> 3	<b>a</b> 1	T	m1
376	TYL	ser	THE		-	THE	тте	Asn			GLU	GTA	Leu	
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377						_		_						
378	Glu	Tyr	Ser	Leu			Lys	Gln.	Leu	_		Ser	Met	Asp
379					1285	•				1290	)			
380														
381	Ile	Asp	Val	Ser	Tyr	Lys	His	Lys	Gly	Ala	Leu	His	Asn	Tyr
382	1295	5			-	1300	)	-	_		1305	5		-
383											-			
384	Lvs	Met	Thr	Asp	Lvs	Asn	Phe	Leu	Glv	Ara	Pro	Va1	Glu	Val
		1310			-7-		1315		<b>-</b> 1	,9		1320		, u.
386		1010	•				1010	•				1320	,	
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388			1325					1330	,				1335	)
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390	GTÀ	Leu				His	Val	Thr			Val	His	Lys	
391				1340	)				1345	,				1350
392					-									
393	Ser	Thr	Ser	Glu	Glu	Val	Cys	Ser	Phe	Tyr	Leu	Lys	Ile	Asp
394					1355					1360	)			
395														
396	Thr	Gln	Asp	Ile	Glu	Ala	Ser	His	Tyr	Arq	Gly	Tyr	Glv	Asn
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399	Sor	Aen	ጥህም	Luc	Ara	Tla	Val	Ala	Cve	λla	Sor	Tree.	Tvc	Dro
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400		1380					1385					1390		
401	_				_	_	_		_	_	•			
402	ser				Ser	Ser		Gly		Ser	His	Ala		
403			1395					1400					1405	
404														
405	Asp	Ile	Ser	Leu	Pro	Thr	Gly	Ile ·	Ser	Ala	Asn	Glu	Glu	Asp
406				1410			_		1415					1420
407		•												
408	Leu	Lvs	Ala	Leu	Val	Glu	Glv	Val .	Asp	Gln	Leu	Phe	Thr	Asp
409					1425				_	1430				
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# RAW SEQUENCE LISTING PATENT APPLICATION US/08/487,283 DATE: 12/09/96 TIME: 10:03:14

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411	m	<b>a</b> 1	<b>T</b> 1.	T		<b>a</b> 1				_		_	_					
	143		Ile	гÀг	Asp			vaı	тте	Leu			Asn	Ser				
412	143	•				144	U				144	5						
413		_			_		_		_		_							
414	ITe		Ser	Ser	Asp	Phe	Leu	Cys	Val	Arg	Phe	Arg	Ile	Phe		•		
415		145	0				145	5				146	0					
416																		
417	Glu	Leu	Phe	Glu	Val	Gly	Phe	Leu	Ser	Pro	Ala	Thr	Phe	Thr				
418			146					147					147					
419																		
420	Val	Tyr	Glu	Tyr	His	Arg	Pro	Asp	Lys	Gln	Cys	Thr	Met	Phe				
421		_		148		_		-	148		-			1490				
422																		
423	Tyr	Ser	Thr	Ser	Asn	Ile	Lvs	Ile	Gln	Lvs	Val	Cvs	Glu	Glv				
424	-				1495					150		-1-		1				
425											•							
426	Ala	Ala	Cys	Lvs	Cvs	Val	Glu	Δla	Asp	Cvs	Glv	Gln	Met	Gln				
427	1505		- 1 -	-1-	- ] -	1510				0,10	1519		1100	0111				
428		•					•				131.	,						
429	Glu	G] 11	Leu	Agn	T.611	Thr	Tla	Sor	λla	al.	Thr	λra	Tuc	aln .				
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433	****	ALG	1535		110	GIU	TŤG	154		мта	TAT	гуз	1545					
434			1335	•		•		134(	,				1545	,				
435	т1ь	Thr	Ser	Tla	Thr	Val	Glu	λen	บรา	Pho	Wal	T vvc	Mtr.∞	T ***				
436	116	1111	Ser	1550		Val	GIU	ASII	1555		val	гÀг	TÄT	-				
437				1330	,				133.	,				1560				
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440					1303	•				15/(	,							
441	GI.	Tara	Asp	e~~	<i>α</i> 1	T1.	mb =	Dho	71.	T	T	*** 1	m1	<b>G</b>				
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446		1330	,		•		1393	,				1600	ļ					
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448	GTA		Glu 1605		neu	OT11		LуS 1610		ASII	FIIE		Pne 1615					
449			1003	,				1010	,				1012					
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451	TYL	116		1620		АБР	ser	rea.	1625	_	TTG	GIU	•	_				
452				1020					1623	,				1630			*	
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457 458	1043					1650					1655				•			
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460																		
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2493 (2) INFORMATION FOR SEQ ID NO:19:

### RAW SEQUENCE LISTING PATENT APPLICATION US/08/487,283

DATE: 12/09/96 TIME: 10:03:18

```
2494
            (i) SEQUENCE CHARACTERISTICS:
                  (A) LENGTH: 813 base pairs
2495
2496
                  (B) TYPE: Nucleic Acid
2497
                  (C) STRANDEDNESS: Double
2498
                 (D) TOPOLOGY: linear
2499
            (ii) MOLECULE TYPE: Other nucleic acid
2500
                  (A) DESCRIPTION: N19/8 scFv (His Tagged)
2501
2502
2503
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:
2504
       ATG GCC AAT ATT GTG CTG ACC CAA TCT CCA 30
2505
2506
       Met Ala Asn Ile Val Leu Thr Gln Ser Pro
2507
2508
2509
       GCT TCT TTG GCT GTG TCT CTA GGG CAG AGG 60
       Ala Ser Leu Ala Val Ser Leu Gly Gln Arg
2510
2511
                        15
2512
2513
       GCC ACC ATA TCC TGC AGA GCC AGT GAA AGT (120
2514
       Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser
2515
                        25
2516
       GTT GAT AGT TAT GAC AAT AGT TTT ATG CAC(150
2517
2518
      Val Asp Ser Tyr Asp Asn Ser Phe Met His
2519
                        35
                                                             Lotelane off
2520
2521
      TGG TAC CAG CAG AAA CCA GGA CAG CCA CCC 180
      Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
2522
2523
2524
2525
      AAA CTC CTC ATC TTT CTT GCA TCC AAC CTA 210
      Lys Leu Leu Ile Phe Leu Ala Ser Asn Leu
2526
2527
2528
2529
      GAA TCT GGG GTC CCT GCC AGG TTC AGT GGC 240
2530
      Glu Ser Gly Val Pro Ala Arg Phe Ser Gly
2531
                        65
                                            70
2532
2533
      AGT GGG TCT AGG ACA GAC TTC ACC CTC ACC 270
2534
      Ser Gly Ser Arg Thr Asp Phe Thr Leu Thr
2535
2536
2537
      ATT GAT CCT GTG GAG GCT GAT GAT GCT GCA 300
      Ile Asp Pro Val Glu Ala Asp Asp Ala Ala
2538
2539
                        85
2540
2541
      ACC TAT TAC TGT CAG CAA AAT AAT GAG GTT 330
2542
      Thr Tyr Tyr Cys Gln Gln Asn Asn Glu Val
2543
                       95
2544
2545
      CCG AAC ACG TTC GGA GGG GGG ACC AAG CTG 360
      Pro Asn Thr Phe Gly Gly Gly Thr Lys Leu
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#### **RAW SEQUENCE LISTING** PATENT APPLICATION *US/08/487*, 283 TIME: 10:03:21

DATE: 12/09/96

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GAA ATA AAA CGG ACC GGA GGT GGC GGG TCG 390 Glu Ile Lys Arg Thr Gly Gly Gly Ser GGT GGC GGG GGA TCG GGT GGC GGA GGG TCG 420 Gly Gly Gly Ser Gly Gly Gly Ser GAC GTC AAG CTC GTG GAG TCT GGG GGA GAC 450 Asp Val Lys Leu Val Glu Ser Gly Gly Asp TTA GTG AAG CTT GGA GGG TCC CTG AAA CTC 480 Leu Val Lys Leu Gly Gly Ser Leu Lys Leu TCC TGT GCA GCC TCT GGA TTC ACC TTC AGT 510 Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser AGC TAT TAT ATG TCT TGG GTT CGC CAG ATT 540 Ser Tyr Tyr Met Ser Trp Val Arg Gln Ile TCA GAG AAG AGG CTG GAG TTG GTC GCA GCC 570 Ser Glu Lys Arg Leu Glu Leu Val Ala Ala ATT AAT AGT AAT GGT GAT AGC ACC TAC TAT 600 Ile Asn Ser Asn Gly Asp Ser Thr Tyr Tyr CCA GAC ACT GTG AAG GGC CGA TTC ACC ATC 630 Pro Asp Thr Val Lys Gly Arg Phe Thr Ile TCC AGA GAC AAT GCC AAG AGC ACC CTG GAT 660 Ser Arg Asp Asn Ala Lys Ser Thr Leu Asp CTG CAA ATG AGC AGT CTG AAG TCT GAG GAC 690 Leu Gln Met Ser Ser Leu Lys Ser Glu Asp ACA GCC TTG TAT TTC TGT GTA AGA GAG ACT 720 Thr Ala Leu Tyr Phe Cys Val Arg Glu Thr TAT TAC TAC GGG ATT AGT CCC GTC TTC GAT 750 Tyr Tyr Tyr Gly Ile Ser Pro Val Phe Asp

2610 2611 2612

### RAW SEQUENCE LISTING PATENT APPLICATION US/08/487,283

DATE: 12/09/96 TIME: 10:03:24

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2600											
2601	GTC	TGG	GGC	ACA	GGG	ACC	ACG	GTC	ACC	GTC	780
2602	Val	Trp	Gly	Thr	Gly	Thr	Thr	Val	Thr	Val	
2603					245					250	
2604											
2605	TCC	TCA	CTC	GAG	CAC	CAC	CAC	CAC	CAC	CAC	810
2606	Ser	Ser	Leu	Glu	His	His	His	His	His	His	
2607					255					260	
2608											
2609	TGA										813

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# SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/08/487,283

DATE: 12/09/96 TIME: 10:03:25

Line	Error	Original Text
57 72 76 2495 2513	Entered (1658) and Calc. Seq. Length (1676) differ Unknown or Misplaced Identifier Entered (813) and Calc. Seq. Length (783) differ	<ul> <li>(A) DESCRIPTION: KSSKC peptide</li> <li>(A) LENGTH: 1658 Amino Acids</li> <li>(A)DESCRIPTION: Pro-C5 Polytpeptide</li> <li>(A) LENGTH: 813 base pairs</li> <li>GCC ACC ATA TCC TGC AGA GCC AGT GAA AGT 12</li> </ul>

### Notice of Availability

Applicant Aid for Biotechnology Computer Readable Form (CRF)
Sequence Listings Submissions

The Patent and Trademark Office (PTO) has developed a computer program, called Checker, that will aid applicants in identifying and correcting errors prior to making submissions for compliance with the Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures (sequence rules: 37 CFR 1.821 through 1.825). (Final rules were published in the Federal Register (55 FR 18230) on May 1, 1990, and in the PTO Official Gazette (1114 Off.Gaz.PatOffice 29) on May 15, 1990.)

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  Cost: Free-of-charge
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- 3) For diskette copies, telephone requests to 703-306-2600. Cost: \$25.00

For Further Information Contact: Meredith Beckhardt at 703-308-4212.

Arti Shah